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— *of inventorship (Rule 4.17(iv)) for US only*

Published:
— *upon request of the applicant, before the expiration of the time limit referred to in Article 21(2)(a)*
— *with declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority*

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WO 03/094902 A2

(54) Title: SURFACE TREARMENT OF SARS-INFECTED LUNGS

(57) Abstract:

Surface Treatment of SARS-Infected Lungs

Inventor Zhen-man Lin
May. 20, 2003

I. Background of the invention

Since February 2003 years, SARS infection has wreaks havoc in China, Hong Kong and many other countries in the world. Its effects had send repercussion throughout the entire international society. The death rate has been high and the Chinese and western medical social were quite helpless about this. So China, Taiwan , Hong Kong, Singapore and Canadian etc. were listed on travel warning district by World Health Organization and pecuniary loss surmount thousand a hundred million, Mankind is faced with death threat.

Knowing how to treat the SARS virus infection had became the top most urgent matter in the Southeast Asia. During this urgent and difficult period of time, the inventors had came up with a innovative medical scheme to save lives, the newest of medical scheme is "Surface Treatment of SARS-Infected Lungs". Due to the urgency of saving lives, the draft was fax to the Hong kong chief executive and Chinese leader on 15 May 2003. The English version was also forwarded to "WHO-Padey", "WHO-Liden" by Mey-Verme, Mrs Cuia (WDC) and the leaders who were holding the Geneva meeting on 20 May 2003.

II. PREFACE

About the functions of the lungs.

The lungs mainly serve to redistribute the blood from the right ventricle via the lung artery to various lung sub-arteries and capillary vessels in the alveoli, thus achieving gas exchange introducing oxygen and releasing carbon dioxide. Then the blood returns from the lung veins to the left atrium and mixed at a certain proportion in the right ventricle. That is the big circulation of oxygen-containing blood in the arteries providing energy for the body! (Fig. 1.)

Here the medium for gas exchange is not special, just like pumping the air to the bottom of a fish jar to produce bubbles and the oxygen enters the water by rubbing against the external spherical surfaces of the rising bubbles. Our alveoli work like the bubbles in the fish jar and have a large surface area for air contact. The contact area of the dense alveolus tissues in the lungs is up to 70 m^2! Tiny blood vessels are spread over the surfaces of these tissues to complete "gas exchange" or, in other words, pulmonary ventilation, via distribution through the blood, interstitial layer and cells. That is the basic idea of the lungs according to modern medicine.

On the medical history, sort of Lung diseases have been numerous. Tuberculosis used to be an infectious disease difficult to cure. However, it can be cured 100% thanks to the discovery of multiple antibiotics. Infant pneumonia is also a common disease, not to speak of pneumococcus. This article describes how to treat SARS.

First, treatment by the traditional Chinese medicine. This method mainly relies on absorption function of the intestines and stomach, which impedes the development of the traditional Chinese medicine. Traditional Chinese prescriptions only help the intestines and stomach to share the burden of the liver, thereby improving only our immunity.

However, the prevailing SARS cures at present are based on Western medicine. The Chinese mainland advocates such antibiotics like tetracycline and erythromycin while Hong Kong regards ribavirin and steroid as effective SARS-containing medicines, but in Canada, which had used Ribavirin for a long time, has now stopped using it because it may have serious side effects.

However, no matter how to, the antibiotics is being absorbed by the intestines and stomach or injected via the veins, they cannot change the subject of the method of transporting anti-bacterium factors in the blood. We call this method blood therapy. Because , many elements in the anti-bacterium factors cannot be absorbed by the intestines and stomach, so the Western medicine takes the lead by this therapy.

That is why the medical circles are focusing on how to improve the efficiency of the "anti-bacterium factors".

But, as shown in Fig.2, if the injection point is found in the arteries of the lungs, then the "blood therapy" may become much more effective, as proven by the noticeable flow ratio of the artery and lung circulation. SARS-containing clinical practice is thus more effective. However, we want to point out that the efficiency direction of the "anti-bacterium blood therapy" of SARS is wrong.

As there is a need to define air as an interface, so SARS infection is a kind of surface ulcerous infection. This is a new medical definition, which is likely to revolutionize lung treatment! Therefore we use a familiar industrial term

'surface treatment" and to include a technique of supersonic treatment. This is like applying purple liquid medicine to the ulcerous skin which is much more effective than "blood therapy" using any antibiotic.

Up to this point, we can optimistically predict that once the "surface treatment" technique which depends on various antibiotics recommended has found clinic applications, then a SARS patients need only to go to the hospital to have their lungs washed, and SARS will no longer be fatal. At the same time it can also be effective for other pneumonia diseases.

Let's learn something about the physical properties of SARS before dealing with the subject matter of this article—SARS treatment:

1. Fig. 3 is downloaded from the Internet. SARS virus is smaller than 50 nanometers. SARS virus has numerous crown-like developments, making it absorptive. Overcoming such absorption is significant for the "surface treatment" technique recommended in this article. When we contract bacterium-induced faucitis, we just wet our throat with brine and the pain immediately subsides, because some bacteria are "washed away" by brine, as proven by observing under an electronic endoscope. This traditional inflammation relief method through brine is well-known to all. Inspired by this idea, I think such a simple method can also prevent SARS virus from entering the lungs through the mouth and throat.
2. Super-small and super-light virus is visible only through an electronic microscope and the 75-nm N95 standard respirators we use cannot keep out SARS virus, so SARS virus spreads by means of the tiny water droplets and dust particles in the air. In view of that, we can work out a series of effective preventive measures like the "surface treatment" method recommended in this article.

III. Five lung "surface treatment" methods

1. Antibiotic gasification and absorption;
2. Massage and sternutation;
3. Taking out and sterilizing lung lobes;
4. Local quick freezing for sterilizing of lung lobes;
5. I njecting sterilizer into lung lobes.

Discussion 1

The method of antibiotic gasification and absorption is not new. This method is effective at the early stage of infection and may serve as a preventive measure before and after medical operation. This method presupposes that the antibiotic in question must be dissolvable in 37℃ water.

Discussion 2

The method of massage and sternutation is more suitably called physical therapy. It works like this: pressing the alveoli by applying force on the lungs and detaching the virus from the cell wall of the alveoli. Facing the nose toward the sun may help to induce sternutation, which is recommendable at the early stage of infection or as a preventive measure. Therefore sunlight sternutation device will be popular on the market. Sternutation is the best exercise for the chest and lungs, and sneezing three times a day is good for senior citizens. The benefits of such an exercise are hardly known but it is a good piece of news for people with weak lungs. This method is just preventive but not effective in detaching the highly absorptive SARS virus.

Discussion 3

Taking out and sterilizing lung lobes is not just a dream. It involves the invention and clinical application of external blood oxygen adding device. This method includes liquid medicine submersion and temperature difference treatment, the latter being the latest medical concept not only suitable for lung patients but also for cancer patients and others. Further exploration of this method may help to replace antibiotic blood therapy with this method:

a. External liquid medicine submersion is more flexible that internal liquid medicine submersion. There are a few or no Liquid medicines that do not damage alveolus tissues. However, an effective liquid medicine for lung lobe submersion will be more effective and attractive if combined with supersonic wave.

b. What is temperature difference treatment? The organs and virus under treatment have difference physiological temperature curves. Temperature difference effect is achieved by selecting a temperature point which is fatal to viruses but from which the organs treated can revive. It is not important whether this method is recorded in medical literature, but the method proves simple, the essential point is the revival rate of the organ under

treatment. This is therefore a highly recommended method.

Discussion 4

Local quick freezing and sterilizing of lung lobes is also based on temperature differences but technically it is an improvement from the above three discussions. Taking out lung lobes without cutting off arteries and veins may minimize the damage to the organ and inter-organ contact, making this method practical. While it is difficult to carry out on Lungs, it is feasible for "semi-detached organs" like. The root of the problem is that the quick-freezing equipment involved is not as simple as an ammonia cyclic refrigerator. The clinic freezing device must work in contact mode and is capable of lowering the temperature of an organ of about 1 kg to -30-50℃ within 5 ~ 10 seconds. Many medical fields are gone up and breakthroughs will rely on this kind of technical accomplishment, that is made in accordance to the trade circle of science and technology requirement.

Discussion 5

Injecting sterilizer into lung lobes is the subject matter of surface treatment technique of this article. I do not specialize in medicine but just a little medically minded. Inspired by the idea of relieving oral and throat inflammation with brine solution, I managed to find some suitable solvent and sterilizer, but it has to undergo clinical test. But I'm sure that so long as some qualified chemist proposes and there is an adequate range of solvents and sterilizers, SARS will be overcome!

IIII. O1 Therapy for "surface treatment" of the lungs

The sterilizing liquid injected into lung lobes is the surface treatment liquid for O1 therapy of the lungs. The formal name for this liquid is Per fluoro chemicals (PFC) and the sterilizer is ozone.

This method of introducing supersonic wave with sterilizing liquid may make SARS virus less absorptive and quickly clear viruses in the lungs. This new and practical therapy works like bombing the SARS virus with smart cruise missiles. The missile is single oxygen (O1) separated from ozone, hence "O1 Therapy"!

The effect of the regular antibiotic therapy currently used is limited in that this therapy entails blood exchange, and it is also limited by blood density. For example 50nm-minus SARS virus is hidden in the middle layer that is inaccessible via the capillary vessels, so the mortality rate of this "blood therapy" is still over 10%. The "blood therapy" of Western medicine has reached its maximum potential. On the contrary, "O1 therapy" is highly effective and is likely to reduce the death rate to zero.

1. Selection of PFE solvent;
2. Properties of ozone sterilizer;
3. Lung "surface treatment" design flow;
4. Test with animal lung;
5. Special of operating table.

1. Selection of PFE solvent

PFC comes to our mind when we select a liquid medium for cleaning alveoli. Clinical cases are available for PFC breathing technique. We can rely completely on such an effective sterilizer or antibiotic to kill SARS virus. PFC has the characteristics:

1. No color, taste or smell, not poisonous;
2. Low surface tensile strength, not dissolvable in water or fat;
3. High dissolving coefficient for oxygen and carbon dioxide, high density and low solubility, higher dissolving coefficient for ozone;
4. Volatile under indoor temperature and body temperature, does not changeable into other matter via catabolism;

With the above features, PFC qualifies as a lung surface treatment liquid. It has a dynamic function. On the one hand, oxygen can pass through it to achieve constant gas exchange in the lungs, and on the other hand, the liquid PFC can permeate any alveoli, so that the O1 element in PFC can freely trace SARS virus. The volatility of PFC ensures that no sequela will appear. What is more, PFC can also clean the lungs of damaged cells, cell fragments resulting from

inflammation, and SARS virus residuals.

2. Characteristics of ozone sterilizer

1. The molecule formula of ozone is O3, which is an allotrope of high-energy oxygen and is dissolvable in water and various liquid chemicals;
2. Low-density ozone is colorless and smells like a special grass. It is blue at high temperature and its density is 1.5 times that of air;
3. Ozone sterilizes by releasing single oxygen atom to oxidize and damage the cell of the virus, leaving pure O2, which is beneficial to the lungs;
4. Ozone dissolved in water sterilizes more forcibly and quickly, and it is dissolvable in liquid PFC;
5. When the density of ozone exceeds a certain limit, its sterilizing function is just a matter of seconds;

Therefore, ozone is a good choice as an alveoli sterilizer. The following figures are cited from world-recognized experiment documentation for ozone sterilizing.

	Density	Time	Types of viruses and pathogens	Sterilizing efficiency
Ozone sterilizing	10mg/m3	20 mins	Type-B hepatitis surface antigen (HbsAg)	99.99%
	0.5ppm	5 mins	Type-A flu virus	99%
	0.13mg/L	30 seconds	Poliomyelitis virus type I (PVI)	100%
	40μg/L	20 seconds	Coliphage ms2	98%
	0.25mg/L	1 minute	SA-H and human-wheel virus type 2	99.60%
	* 12.6mg/L	4 minutes	Coronaviridae	100%
	4mg/L	3 minutes	HIV	100%
	8mg/m3	10 minutes	Mycoplasma, Chlamydia, and other pathogens	99.85%

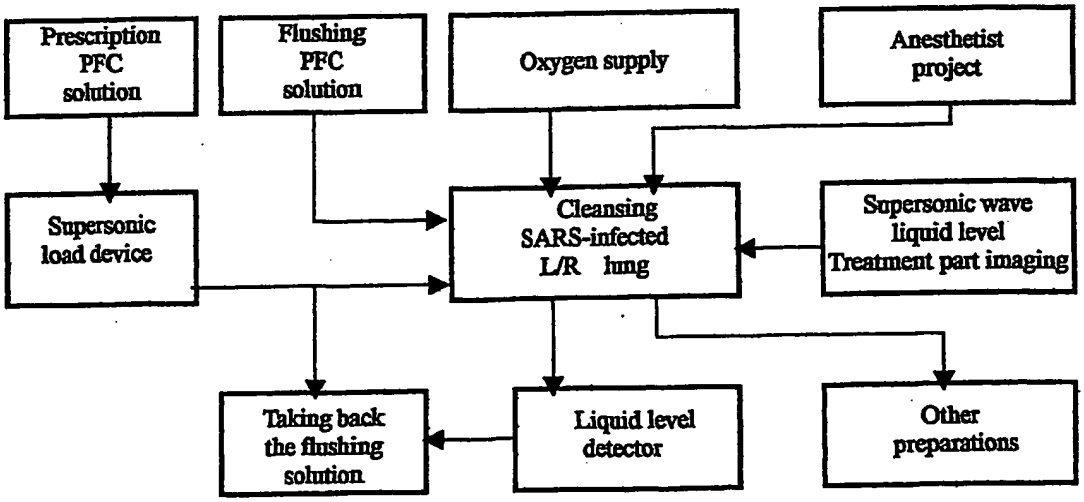
* Red indicates every liter of lung surface treatment solution contains 12.6mg ozone, which may serves as a reference when we consider the test dosage of ozone.

3. Lung "surface treatment" flow

The treatment flow takes the treatment for example of the right lung, while reserving the breath of the left lung for the time being. The final purpose is to treat both lungs at the same time. Process 3 can only be used only after process 4. Test it with animal lung, before applying it on human. It must be noted that the test with animal lung is intended to prove that it applies to process 3, the human body treatment. The advantage of the reverse sequence is time saving.

a. Surface treatment clinic (must be professional anesthetist except for bio-chemical test of body energy) diagram : (Fig. 4)

b. Surface treatment clinic scheme



4. Test with animal lung

Test with animal lung includes two stages: test with one lung of the baby pig and test with both lungs. This process simulates process 3, as specified below:

a. Inject pure PFC into three without virus influence of baby pig

Baby pig	Pure PFC injection 10 mins			Pure PFC injection 30 mins			Pure PFC injection 120 mins		
	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description
1									
2									
3									

b. Inject 12.6mg/L PFC into three virus-free pig to test its reaction to high-density ozone:

Baby pig	Pure PFC injection 10 mins			Pure PFC injection 30 mins			Pure PFC injection 120 mins		
	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description
1									
2									
3									

c. Inject 25.2mg/L PFC into three virus-free pig to test its reaction to high-density ozone:

Baby pig	Pure PFC injection 10 mins			Pure PFC injection 30 mins			Pure PFC injection 120 mins		
	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description
1									
2									
3									

d. Inject 12.6mg/L PFC into three infected of baby pig to test its reaction to high-density ozone:

Baby pig	Pure PFC injection 10 mins			Pure PFC injection 30 mins			Pure PFC injection 120 mins		
	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description	Change of blood oxygen amount	Heart pulses	Symptom description
1									
2									
3									

Note 1. The above a-c tests are intended to test whether PEC solvent with or without ozone has bad effect on the lungs. In test c, the density of ozone can be further increased until a reliable pig lung reaction curve, wh ich may serve as a reference for chemists for preparing prescriptions for human treatment.

Note 2. Test d is intended for SARS inflammation, needing an infected pig. Tests with difference densities can be worked out by analogy, but the baby pig under the test is much more resistant to diseases than man. Usually, after 1-3 medicine reaction tests, similar results can be obtained in the tests with various dosages and can be observed under a microscope, and the bio-chemical lab can work out a guided report for the chemists in a short time. The test planning is for your reference only.

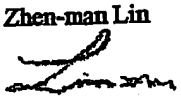
Important points in designing the operation table

The operation table should be designed such that it can turn horizontally so that the patient on the table can turn left or right with an angle of at least 45 degrees to facilitate the treatment of the left and right lungs.

V. Conclusion

From the viewpoints mentioned above, combining the PFC solution and ozone together will attack the SARS virus in no time, the method will sure to treated the SARS virus infection and there will be no side effect at all, the invention will save many lives and change medical-historical for lung disease.

Zhen-man Lin



Surface Treatment of SARS-Infected Lungs

Inventor Zhen-man Lin

Claims

1. The main characteristic of the "Surface Treatment of SARS–Infected Lungs" is to inject sterilizing liquid into the lung lobes.
2. The formal name for the medicine of sterilizing liquid is Per Fluoro Chemicals (PFC) adding ozone forming a medicine.
3. Including any other lung diseases and SARS inflammation.
4. To add antibiotics or other bactericide into the sterilizing liquid to suppress or to kill the virus.

Fig. 1

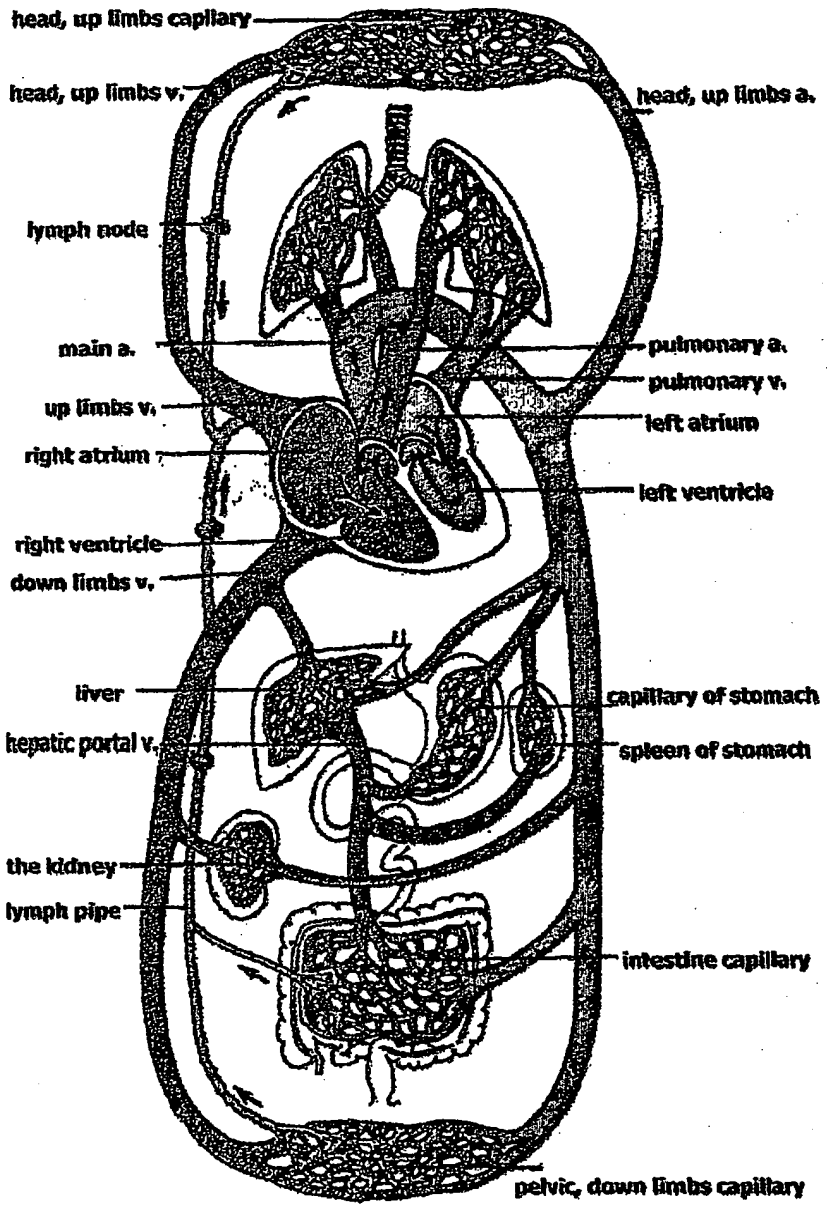
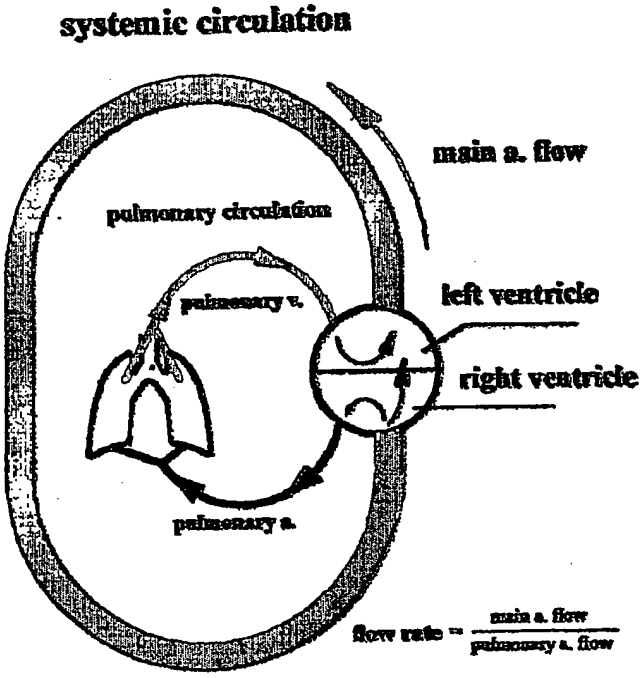

head, up limbs capillary
head, up limbs v.
head, up limbs a.
lymph node
main a.
pulmonary a.
pulmonary v.
up limbs v.
left atrium
right atrium
left ventricle
right ventricle
down limbs v.
liver
capillary of stomach
hepatic portal v.
spleen of stomach
the kidney
lymph pipe
intestine capillary
pelvic, down limbs capillary

Fig. 2.



The flow ratio of the aorta to that of the lung artery is a constant, therefore the effect of the medicine will improve radically if a proper point of injection is found in the lung artery.

Fig. 3.

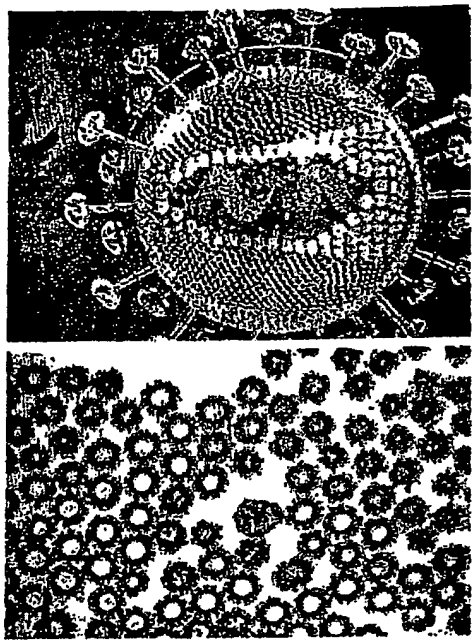
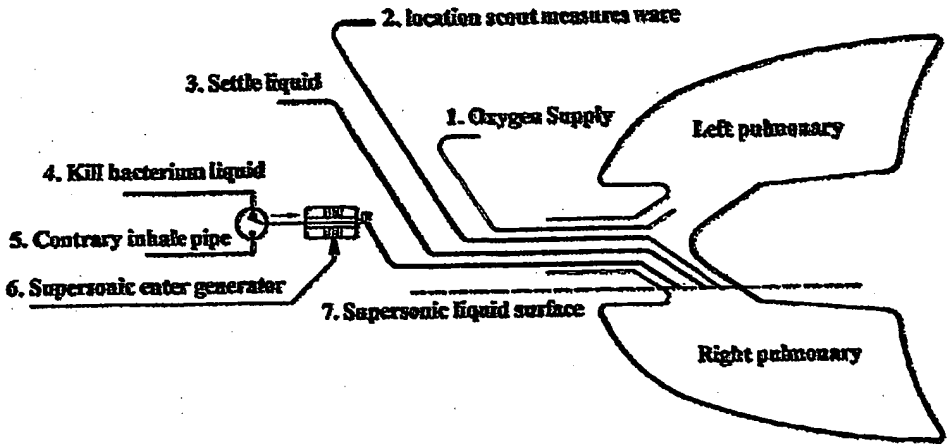


Fig. 4.


2. location scout measures ware
3. Settle liquid
1. Oxygen Supply
Left pulmonary
4. Kill bacterium liquid
5. Contrary inhale pipe
6. Supersonic enter generator
7. Supersonic liquid surface
Right pulmonary

Box No. VIII (iv) DECLARATION: INVENTORSHIP (only for the purposes of the designation of the United States of America)

The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.

Declaration of inventorship (Rules 4.17(iv) and 51*bis*.1(a)(iv)) for the purposes of the designation of the United States of America:

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT/..... (if furnishing declaration pursuant to Rule 26*ter*).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications: .....

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Citizenship: .....

Inventor's Signature: .....
(if not contained in the request, or if declaration is corrected or added under Rule 26*ter* after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: June 12, 2003
(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26*ter* after the filing of the international application)

Name: .....

Residence: .....
(city and either US state, if applicable, or country)

Mailing Address: .....

Citizenship: .....

Inventor's Signature: .....
(if not contained in the request, or if declaration is corrected or added under Rule 26*ter* after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: .....
(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26*ter* after the filing of the international application)

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".